



This newsletter has been produced as part of the Future Orchards® program. Future Orchards is a strategic levy investment under the Hort Innovation Apple and Pear Fund. It is funded by Hort Innovation using the apple and pear levy and funds from the Australian Government and is delivered by APAL and AgFirst.

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Update

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IN THIS ISSUE

Welcome to the November 2022 edition of the Business Development Group (BDG) newsletter. Spring is already ending, and things are beginning to warm up. Hand thinning is well underway as we look to a season full of challenges.

This newsletter will consist of our data collection reminders at this critical hand thinning period as well as what to look for heading into harvest. It will also cover a range of OrchardNet features that could benefit you and your business. Now is the time to start fruit sizing if you have not already. In this article we will cover off fruit sizing methodology and timing.

Christmas is just around the corner and as we deal to the different challenges thrown at us this year, what we can continue to do well is control the controllables.

Goodluck for the month ahead.

--Adrian

OrchardNet has a variety of in-built tools to allow for production planning. A combination of accurate tree counts, areas, block production targets and other factors can be combined to give target bud and fruit numbers per tree.

<http://www.orchardnet.co.nz>

**Don't have an OrchardNet account?**

As part of the Future Orchards project OrchardNet is provided to Australian growers for free (up to 1200 blocks total). Please contact [adrian.stone@agfirst.co.nz](mailto:adrian.stone@agfirst.co.nz) if you would like to give it a go.

**Critical Data Reminders**



**Fruit sizing methodology**



## Reminders: Critical data for the season ahead

If you've been reading past newsletters, you'll have collected datapoints for a number of your blocks for the season already (e.g. green tip date, full bloom date, tree cross sectional area and notes on the season to date).

Here's a few more to be capturing over the next few weeks...

### Pre-hand thinning counts

Before you start thinning, it's important to determine what you're working with.

Now that secondary thinner-related fruit drop is finished (when you are confident on what will/won't stay) you will be able to undertake a series of counts to establish what you're working with.

Undertaking cluster counts is a great place to start. What is important is finding a good counter. Counting can be challenging but once you find someone who can count accurately it is worth its weight in gold. Zoning the tree (e.g. ladder crew, ground crew) can be a good way to establish clear rules for workers to achieve target croploads.

OrchardNet offers an excellent counting tool which allows you to reference the trees you count, giving you confidence you are counting trees that are representative of the block.



### Hand thinning strategy

Your hand thinning strategy may look a little different to a year with the usual labour pool available. Block prioritization becomes extremely

important. We need to identify the money-making blocks and do everything we can to ensure they continue to be our cash cows.

With a good look around all your blocks (include the management team to discuss strategy) establishing a block priority list, rules for each block and a scale of each job will help with season planning.

Having a reference list of planned movements for thinning teams can ensure smoother operation and high priority blocks don't get left later than intended. Monitoring and measuring against this planning sheet can help to highlight if things are taking longer than intended (e.g. budgeted 25x8-hour days and only halfway through at 20 8-hour day equivalents) and an early insight into labour shortfalls.

### Post-hand thinning counts (as you go and after you are done)

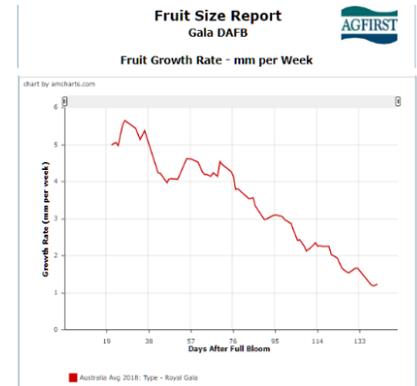
Are your hand-thinning rules and strategies working?

Counting trees behind thinning crews can ensure you remain on track. Counting is a critical part of this role but watching for damage (e.g. fruitlets being dropped through the tree) and defects being missed is equally as important.

### Fruit size

Fruit sizing has begun. If you are monitoring fruit size, you should have started or be about to start. This can be undertaken in OrchardNet.

For more information on fruit sizing see page 3 of this article.



### Rest of season strategy

Think about what needs to happen and when.

- Thinning priority
  - Est. start date and number of worker-days required
- Tree training/pruning
  - When, what, how long will it take?
- Harvest plan
  - Date for reflective mulch
  - Date to start monitoring maturity (check you have all supplies ready to go now rather than the day your start)
  - Harvest management (Retain, Harvista)
  - Stop-drop plan (if needed)
  - Accurate crop estimates can help to foresee labour/bin number issues
- Postharvest nutrition plan
  - Who is responsible?

# Fruit sizing

Now is the right time to start fruit sizing if you want to use this really valuable monitoring system. There is no better way to be able to monitor the performance of your trees.

## Fruit Sizing Protocol

The protocol you use will depend on the intended use of the data. If you primarily want to monitor growth rate and an accurate fruit size prediction at harvest is secondary, we suggest monitoring 20 fruit per block weekly.

Go to a representative row in the block and mark 4 average trees with coloured tape. You will probably choose a row that you need to visit regularly for other reasons e.g. pest traps or soil moisture monitoring sites. Close to the tape, mark 5 representative (average) pieces of fruit. You can either write directly on the fruit with a permanent marker or tag the fruit with a numbered breadclip. Both options are shown below. You will therefore mark 20 fruit per block. The same fruit are measured either weekly or fortnightly, we recommend weekly to really get a good idea of growth rate.



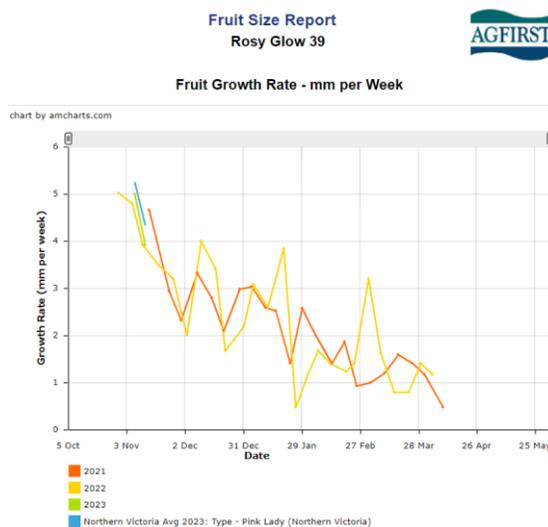
To enter your fruit size data into OrchardNet, go to the fruit size data entry screen by clicking into the block and then click on "Fruit sizing".

Enter the date the measurement was made, the average reading and the number of fruit measured. Also make sure your Full Bloom date is entered. Once this is done, you can

run a series of management reports that can assist you make better orchard management decisions.



The figure below shows the growth rate of Rosy Glow 39 in Northern Victoria. The growth rate in the 2023 season is sitting at 3.92 mm/week which is tracking the same as the corresponding week in 2022 and sitting below the regional average of 4.34 mm/week.



If you require fruit size monitoring to give you good data for crop estimate profiling, we suggest you increase the number of fruit to 100 minimum per block. This is best done using digital computer interfaced calipers.